DOCUMENT RESUME

ED 410 892 HE 030 489

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TITLE	An Interprofessional Program Evaluation Case Study: Utilizing Multiple Measures To Assess What Matters. AIR 1997 Annual Forum Paper.
PUB DATE	1997-05-00
NOTE	29p.; Paper presented at the Annual Forum of the Association for Institutional Research (37th, Orlando, FL, May 18-21, 1997).
PUB TYPE	Reports - Evaluative (142) -- Speeches/Meeting Papers (150)
EDRS PRICE	MF01/PC02 Plus Postage.
DESCRIPTORS	*At Risk Persons; Case Studies; Curriculum Evaluation; Degrees (Academic); Educational Researchers; Elementary Secondary Education; Family School Relationship; Formative Evaluation; Higher Education; Inservice Teacher Education; Institutional Research; *Integrated Services; *Interdisciplinary Approach; Interprofessional Relationship; Professional Continuing Education; Program Development; Program Evaluation; School Community Programs; Summative Evaluation; *Teacher Education; Teacher Education Curriculum
IDENTIFIERS	*AIR Forum; Fund for Improvement of Postsecondary Education

ABSTRACT

This paper reviews the first two years of a model program-evaluation case study which is intended to show: (1) how program evaluation can contribute to academic and professional degree programs; (2) how qualitative and quantitative techniques can be used to produce reliable measures for evaluation studies; and (3) how the role of the institutional researcher can be enhanced by assuming the role of program evaluator. The study evaluated the 3-year InServ Project, funded by the Fund for Improvement of Postsecondary Education, and designed to prepare teachers and other professionals to provide integrated services for at-risk children. The first year of the study focused primarily on project activities, evaluation of interprofessional collaboration, and development of an integrated teacher education curriculum. Recommendations included ensuring that interdisciplinary courses reflected a balanced perspective, suggestions that an interdisciplinary seminar course on the case study method be offered, promoting increased lecture attendance among school team members, and focusing efforts during the second year on parental and community involvement in the project. During the second year, evaluation also included a review of curriculum development efforts and assessment of the project's impact on teacher education students; it was recommended that faculty involvement in the development of interprofessional curricula be increased. (Contains 11 references.) (CH)

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Running Head: Interprofessional Program Evaluation Case Study

An Interprofessional Program Evaluation Case Study: Utilizing Multiple Measures to Assess What Matters

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Paper presented at the 37th Annual Forum of the Association for Institutional Research, Orlando, Florida, May 18-21, 1997

IR 030 489

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This paper was presented at the Thirty-Seventh Annual Forum of the Association for Institutional Research held in Orlando, Florida, May 18-21, 1997. This paper was reviewed by the AIR Forum Publications Committee and was judged to be of high quality and of interest to others concerned with the research of higher education. It has therefore been selected to be included in the ERIC Collection of Forum Papers.

Jean Endo
Editor
AIR Forum Publications

ABSTRACT

**An Interprofessional Program Evaluation Case Study:
Utilizing Multiple Measures to Assess What Matters**

The purpose of this paper is to present a model program evaluation case study that illustrates how program evaluation can contribute effectively to academic and professional degree programs; how qualitative and quantitative techniques can be employed to produce valid and reliable measures for evaluation studies; and how the role of the institutional researcher can be enhanced by assuming the role of program evaluator. The paper, which presents the methodology and selected results from an evaluation of a three year interprofessional program, highlights design and analysis techniques relevant to a broad range of evaluation studies in higher education.

Purpose

The purpose of this paper is to present a model program evaluation case study that illustrates how program evaluation can contribute effectively to academic and professional degree programs; how qualitative and quantitative techniques can be employed to produce valid and reliable measures for evaluation studies; and how the role of the institutional researcher can be enhanced by assuming the role of program evaluator. This paper is based on an evaluation of a three year interprofessional program designed to prepare teachers and other professionals to provide integrated services for at-risk children. The paper presents the methodological approaches, including the rationale, design and analytical techniques, as well as selected results from the first two years of the program evaluation.

Program Description

The goal of the program on which this evaluation study is based, the FIPSE InServ Project, was to transform the teacher education program in order to better prepare future teachers to address more effectively the physical, social, and emotional needs of children by working in partnership with health/human service and legal professionals. Faculty and students from the teacher education program and other professional degree programs in psychology, social work, nursing, and law collaborated with school staff, representatives from community agencies, and parent representatives to accomplish the following objectives:

- to articulate new pedagogies, knowledge, skills, and dispositions to assist future teachers in identifying and addressing the complex educational, social, psychological, and health issues confronting today's children,
- to build interprofessional instructional teams in teacher education and field supervision which model interprofessional partnerships in urban schools, and
- to establish interprofessional teams of students to engage in field work/practicum experiences in schools.

Review of the Literature

The design of this evaluation was based on principles of evaluation theory, on models of program evaluation and on writings about evaluation of integrated services. A primary principle incorporated in this evaluation is that implementation analysis is essential to understanding what actually happens during the administration of a program. Such analysis can facilitate the evaluation by identifying the complexities associated with carrying out a program proposal; establishing linkages between program goals and actions; manifesting the difficulty of achieving program objectives; and providing valuable information for future policy development.

Considering implementation analysis as a mechanism for establishing connections between the setting and achieving of goals suggests the need to question the feasibility of the goals as well as the success or effectiveness of the implementation. When objectives are not accomplished, one explanation is the claim of faulty implementation, but another plausible explanation may be that aspirations were set too high. As Pressman and Wildavesky (1973) observe,

> People now appear to think that implementation should be easy; they are, therefore, upset when expected events do not occur or turn out badly. We would consider our effort a success if more people began with the understanding that implementation, under the best of circumstances, is exceedingly difficult. They would, therefore, be pleasantly surprised when a few good things really happened. (pp. xii,xiii)

Results from implementation analysis provide essential information for the development of sound educational and social policy. In this context, policy might be viewed as a hypothesis establishing initial conditions and predicted consequences. Implementation involves the ability to achieve the predicted consequences after the initial conditions have been met. Through implementation analysis, one can identify any mismatches between means and ends and thus guide

the revision of policy for the development of more effective programs in the future. Results from the implementation analysis provide the necessary basis for a valid assessment of the project's success or failure. One must know what was implemented in order to determine what is effective.

In addition to the emphasis on implementation analysis, this evaluation also incorporated ideas from several different models of program evaluation. The evaluation design included a focus on program objectives recommended by Tyler (1949); consideration of the program's context, input, process and product proposed by Stufflebeam (1983); attention to the stakeholder's perspective advocated by Stake (1990); and the inclusion of both formative and summative approaches at different stages of the evaluation (Scriven, 1967).

Given the nature of the program, this evaluation was also designed to reflect the characteristics of integrated services projects. Knapp (1995) recommends that evaluation of integrated services projects should reflect the unique and complex nature of these collaborative endeavors. Integrated services projects involve collaboration among numerous and diverse subjects. Evaluators must study the connections among the subjects which are often difficult to measure. Goetz (1993) proposes that the design of the evaluation should reflect that integrated services is an ongoing process which requires continuous monitoring. Gomby and Larson (1992) concur, stating that integrated services is a comprehensive model and study of it should be long-term and concentrated.

Focusing on the complex nature of interprofessional collaboration, Levin and Greene (1994) assert that the nature of the collaborative endeavor implies a context of change, even chaos, resulting from changes in relationships, populations served, layers of organizations and management as well as changing mandates for professionals. To capture the complex, evolving

nature of integrated services projects, evaluations should include diverse methodologies and incorporate both process and outcome components.

Outcome evaluations are recommended to be implemented later in the progression of the program, allowing the initial phase of the evaluation of a program to focus solely on process evaluation (Burt & Resnick, 1992). Knapp (1995) contends that attributing outcomes to the project requires an understanding of the process that produced the outcomes. Consistent with these recommendations, the evaluation of this program was designed to reflect and support the project's developmental phases moving from primarily a formative, qualitative approach in the first year to a more summative, quantitative approach in the third year.

Many of the evaluation principles and research methodologies presented in this paper would be relevant to the evaluation of other higher education academic and professional degree programs. Such evaluations represents a unique opportunity for institutional researchers to assume new or expanded roles as program evaluators and active participants in academic program review and curriculum development. Based on his review of the literature on the role of evaluation research in higher education decision making, Shapiro (1986) concluded that evaluation is likely to have the greatest impact in the context of academic program evaluation and decision making. Feasibility considerations preclude comprehensive institutional evaluations and the political milieu of higher education systems suggests that utilization of evaluation results is most likely to occur at the academic level of decision making.

Evaluation Methodology

First Year Evaluation Methodology

While the ultimate goal of this project was to prepare teachers to maximize children's potential for academic success by addressing their physical, social and emotional needs, accomplishment of this goal required the establishment of new intellectual and institutional foundations. Therefore, the first year evaluation focused primarily on the project's activities, strategies and documents designed to establish the new intellectual and institutional foundations. The nature of this phase of the project and of the evaluation was primarily process oriented. Once the foundations were established, the evaluation would shift to a more outcome based assessment.

The first year evaluation effort was conducted primarily as a formative evaluation to monitor the progress and contribute to the ongoing improvement of the project's development. A graduate student, serving as an evaluation assistant, assumed primary responsibility for this phase of the evaluation. When possible, she attended the event, or watched a videotape, summarized and interpreted the issues presented or discussed and noted the number of people participating in the event.

A secondary goal of the first year evaluation was to develop systems for documenting the accomplishments of the project. These systems would provide the data required for summative evaluations to be conducted at the conclusion of the second and third years of the project's implementation. The first year FIPSE InServ Project program evaluation included three components: an Implementation Analysis of the Project's Activities and Accomplishments; a Process Evaluation on Interprofessional Collaboration; and a Product Evaluation on the Development of an Integrated Teacher Education Curriculum.

Implementation Analysis. The implementation analysis phase of the evaluation was conducted through interviews with various participants in the FIPSE InServ Project; attendance at FIPSE interprofessional events; and the collection and review of program materials, documentation, and meeting agenda. The questions that guided this phase of the evaluation include the following:

- How did the FIPSE InServ Project team translate the goals articulated in the proposal into action during the first year of the implementation?
- What activities and events did the FIPSE InServ Project sponsor during the first year?
- What was the impact of the FIPSE sponsored events? How many people participated and how many people were influenced by these events?

Process Evaluation. This phase of the evaluation focused on the process of forming and involving various teams in achieving the goals of this project. This process was of paramount importance as it related to a fundamental principle of the project; i.e., the ability of individuals from different professions and segments of the educational community to collaborate efficiently to integrate their knowledge and skills to achieve improved services for children.

The process phase of the evaluation was completed through observation, interviews, and reflection on the various collaborative experiences which occurred during the first year. Results of this phase yielded information and insights responsive to the following questions:

- What efforts were expended to create the interprofessional teams?
- What challenges were encountered in forming the teams and what strategies were employed to cope with these challenges?
- How effectively did the FIPSE InServ teams function during the first year?
- What were the common and unique contributions offered by the members of the university and the school site teams?

- What new intellectual, professional, and practical insights emerged from this initial collaborative process?

- To what extent did university team members draw from and share their professional knowledge base during the course of discussion?

- What progress did the school/agency interprofessional site teams attain in articulating the needs that present impediments to children's learning?

Curriculum Evaluation. This phase of the evaluation involved both an assessment of progress achieved in creating a draft, curriculum development and a review of the modified or newly created courses focusing on interprofessional collaboration. The draft document was intended to articulate the specific knowledge, processes, and dispositions considered crucial in preparing future teachers for urban, culturally diverse settings. Criteria employed in evaluation of the document included :

- a comprehensive, well documented statement of each profession's (health, law, mental health and social work) knowledge base relevant to early identification and prevention;

- adequate representation of the school site teams' views regarding the multiple needs and complex problems confronting students in their efforts to learn; and

- a synthesis of current research relevant to early identification and prevention.

The evaluation of the modified and newly developed curricula focused on the degree to which the curriculum reflected the ongoing dialogue between the university and school interprofessional teams; the priorities and concerns articulated by these teams; and the professional standards of teacher education.

Second Year Evaluation Methodology

The second year evaluation was designed to be both formative and summative. In addition to the methodologies employed during the first year - an implementation analysis of the project's professional development and educational programs, a process evaluation on interprofessional collaboration, and a curriculum evaluation - the second year evaluation also included an assessment of the perceived impact of the project on teacher education students.

Implementation Analysis. Similar to the first year, the second year implementation analysis phase of the evaluation was conducted through interviews with various participants in the FIPSE InServ Project; attendance at FIPSE interprofessional events; and the collection and review of program materials, documentation, and meeting agenda. The following illustrative questions were employed in an evaluation interview with the project director during the implementation phase of the second year evaluation.

- How has the project changed or improved since the first year of implementation?
- What problems from the first year are you addressing during the second year?
- What is the quality of communication between university and school team members?
  To what extent do they review and incorporate ideas from each other? and
  Have you observed any improvement in communication during this second year?
- How have the team's definition of different knowledge bases and the needs of schools been used to strengthen the teacher education program?
- What project goals do you plan to emphasize next year?

Process Evaluation. Results from this segment of the evaluation documented the continued efforts, challenges, and accomplishments of the various university-based and school site interprofessional teams. During the second year, this phase of the evaluation was expanded to include the project's community outreach efforts.

Curriculum Evaluation. The second year curriculum evaluation concentrated primarily on the revised and newly created interprofessional courses. The evaluation included reviewing course syllabi and interviewing faculty members who were asked to discuss how they incorporated the knowledge bases of other professions in their courses and how their courses helped students prepare for interprofessional collaboration and integrated services.

Perceived Impact on Students. Reflecting the transition from implementation to outcome based evaluation, the second year evaluation focused on the perceived impact of the project on the perceptions, values and knowledge of current education students enrolled in the revised courses. Survey questions were administered to these students to elicit their perspective on how well their teacher education program prepared them to achieve the following objectives:

- to design and use evaluative procedures appropriate for students in different age, gender, ethnic and cultural groups;
- to use relevant support systems within and outside the school in order to optimize opportunities for teaching and learning;
- to show respect for the unique developmental and cultural needs of special needs children, linguistic and other minorities;
- to deal effectively with complexity in the classroom resulting from multiple teacher roles and the academic, social and moral-ethical dimensions of the classroom; and
- to cope with diversity in terms of teaching students with different ability levels in the same class, from different socioeconomic backgrounds, from diverse racial/ethnic, cultural backgrounds, as well as students attending an inner-city school system.

The same survey questions had previously been administered to alumni/ae who graduated from the teacher education program prior to the inception of the FIPSE InServ Project. Using Chi-Square and t-test analyses, the responses of current students were compared with those of the alumni/ae.

Selected Evaluation Findings and Recommendations

First Year Evaluation Results

Implementation Analysis

The first year evaluation, which focused primarily on the project's implementation, involved observing, recording and interpreting major project events, including an Interprofessional Academic Retreat, an Interprofessional Campus Lecture Series, and Major Public Lectures and Urban Seminars. Evaluation findings indicated that the interprofessional academic retreat and lecture series provided an opportunity for various constituents - students, professors, and faculty members - to explore important themes in interprofessional collaboration and to become more aware of the needs of children. The evaluation report contained brief summaries of the project events as well as commentaries on how these events addressed issues of critical importance and achieved the goals of the project. The following is an illustrative summary of one of the interprofesional campus lectures.

> One Child, Many Visions was presented on September 30, 1994 from 1 PM to 3 PM on the college campus. This was a national teleconference that brought policy makers, planners, legislators, administrators, and practitioners from the education community together with their counterparts in social work, health and human services, juvenile justice, and housing. The goal was to have these professionals discuss interdisciplinary collaboration on comprehensive school systems. The teleconference included a videotaped segment that focused on interprofessional teams at Jackson State University in Mississippi, University of Louisville, University of New Mexico, and the University of Washington and how these schools have developed interprofessional teams to meet the needs of children and their families. During the conference, a toll free number was made available so that people watching the conference could call in to ask questions. The conference served to help professionals look at ways they can collaborate with other professionals to serve children and families. Thirteen members of the college community attended. A videotape of the teleconference is available for people who could not attend.

Process Evaluation

As noted previously, a major goal of this project was to promote interprofessional collaboration. To achieve this goal, project administrators created interprofessional teams at the university and school sites. The process evaluation phase of this project included a description of the teams, an assessment of their progress; the identification of challenges encountered; and an analysis of the issues that emerged from the teams' collaborative efforts.

During the early stages of a project, one of the primary roles of the evaluator is to make meaning out of the "ordinary" efforts to launch the project and to transform this information into insights that will be valuable to others undertaking similar endeavors. In this evaluation, the author aimed to achieve this goal by including a section of the report entitled, Emerging Issues in Interprofessional Collaboration. Findings from this phase of the evaluation yielded insights relevant to the following aspects of interprofessional collaboration: intellectual issues related to the development of an integrated curriculum; professional concerns associated with the ability of individuals from different professions to cooperate effectively; and practical considerations concerning the need to arrange convenient meeting sites and form of communication. The following sections document the ideas and insights shared on these issues.

Intellectual Issues. Achievement of the goals of this project requires that the intellectual preparation of professionals reflect the philosophy of integrated services. A first step in this effort involves engaging faculty in the development of a curriculum based on the integration of knowledge from different academic disciplines; this is a primary intellectual issue in educating professionals for integrated services. At this time, the intellectual basis for interprofessional collaboration has not been formally articulated. The accomplishments of the FIPSE InServ Project - the draft document, the lectures, the meetings and the bibliography - are attempts to

provide the intellectual background in collaboration; to define the issues and needs of collaboration more clearly; and to convince faculty of the benefits of collaboration.

Professional Concerns. This project was in many ways an experiment in designing and implementing professional preparation programs and in delivering educational and human services. A critical factor in this experiment was the ability of individuals from different professions to cooperate effectively. The first potential obstacle to interprofessional collaboration addressed in the FIPSE InServ meetings was lack of trust. This factor may be related partially to the organizational structure of academic institutions. Academia is an environment where each school competes for resources. Because of this competition, representatives from individual units may not be inclined to trust others potentially perceived as competitors. Another factor may be the individual and competitive nature of scholarly pursuits. As a consequence of this, faculty in one academic discipline or professional school may not be aware of issues or relevant knowledge outside their field. The meetings and discussions offered through the FIPSE InServ Project were designed to promote a sharing of ideas and to build trusting relationships among people from different fields.

Practical Considerations. The translation of new ideas and the integration of new professional relationships into practice require that attention be given to certain practical considerations. Two practical issues that emerged during the first year of implementation of the FIPSE InServ Project were: the need to establish a convenient meeting site and to develop ongoing systems for efficient and timely communication. The FIPSE InServ Project coped with these issues in the following ways. First, meeting places were varied to accommodate the convenience of different constituents. Second, project participants were encouraged to use the

most convenient and timely form of communication. Much of the communication between the school and university teams was done individually by telephone and e-mail

Curriculum Evaluation Results

A major curriculum development activity during the first year was the development of a draft document to articulate new pedagogies, knowledge, skills, dispositions and impediments to learning. This document was intended to assist future teachers in identifying and addressing the complex educational, social, psychological and health issues confronting today's children. Information in the draft document focused on what teachers should know about the collaborating professions.

Project participants also identified four courses for revision: Child Development; Family, School and Society; Working with Special Needs Students; and Classroom Assessment. These courses were selected because they were required for undergraduate education students and they encompass fundamental knowledge, processes, and attitudes critical to future teachers. New teaching materials were identified, with a special emphasis on carefully constructed case studies that have implications for multiple professions.

In addition, project staff developed a new course, entitled "The Impact of Psychosocial Issues on Learning". This interdisciplinary course related to the goals of the FIPSE InServ Project in several ways. First, the course was designed to educate students from different professions on the importance of interprofessional collaboration. Second, the course focused on a variety of needs that children face, so participants in the class would become aware of children's educational, social, psychological, and health needs, and they also would become aware of the importance of interprofessional collaboration for addressing these needs.

First Year Evaluation Recommendations

Based on findings from the previously described implementation, process and product evaluations, the first year evaluation report presented the following recommendations designed primarily to promote improvement and enhance the progress and impact of the project during the second and third year of implementation. The recommendations are presented in relation to three major project goals: the development of interprofessional curriculum, the dissemination of knowledge about interprofessional collaboration, and the establishment of collaboration between university and school site teams. The rationale following each recommendation is based primarily on evaluation findings indicating need for improvement. These recommendations illustrate how negative evaluation findings were transformed into positive, constructive recommendations for improvement..

Interdisciplinary Courses

1. Ensure that interdisciplinary courses reflect a balanced perspective. Interprofessional academic preparation is essential to the preparation of future professionals who plan to engage in interprofessional collaboration. Such courses need to reflect multiple disciplinary perspectives and students should be required to take these courses. To strengthen the collaborative experience, such courses might include a course project to be completed by students from different professional disciplines. This course related experience would potentially expand the interprofessional collaborative training opportunities for students and prepare them for their work at the school sites. Also students might develop case studies based on their interprofessional collaboration during their practicum.

The evaluation revealed some variability in the extent to which some faculty members were actually revising their curricula and incorporating knowledge bases of other disciplines. This

recommendation was designed to encourage the project director to work with faculty to promote greater integration of other knowledge bases.

2. Encourage faculty to integrate the lecture series with their courses. More students may attend the lectures if they are required as part of regular course activities. In this way students will become more aware of the need for and value of interprofessional collaboration. Results from recent alumni/ae research conducted at this institution support efforts to share the goals and ideas of this project with all students who are preparing to work with children, particularly in a school setting. Based on their own professional practice, our alumni/ae advocate intensive pre-professional preparation to enable newly practicing professionals to cope with the critical social-psychological challenges they will encounter in serving children at risk. This preparation can only be enhanced by attending the interprofessional lectures.

The lectures potentially provided a rich resource of knowledge and expertise. However, the evaluation revealed limited attendance at some of these lectures. This recommendation was intended to increase the audience by linking the lectures with course requirements.

3. Offer an interdisciplinary seminar course on the case study method. Given the importance of case studies in interprofessional training, service and evaluation, it may be beneficial to offer a series of seminars or workshops on the case study method early in the second year of the project. Such a series might address both the intrinsic and instrumental value of the case study method for social work, education and program evaluation. Faculty, graduate students and other project participants would potentially benefit from such a seminar.

The case study represents an ideal method for studying interprofessional evaluation. Yet, a review of selected students' case studies revealed limited knowledge of the method and a presentation of stories rather than analytical case studies yielding valuable insights.

Interprofessional Lecture Series

4. Increase the publicity about each lecture. If it has not already been done, explore various channels of communication in the university - including the faculty biweekly paper and the student newspaper. Publicizing the project would result in more professionals attending the lectures, and therefore, becoming more aware of the needs of children.

5. Consider holding some of the lectures, retreats, and workshops at the school sites.

6. Solicit evaluative data for ongoing program planning. A brief evaluation form might be distributed at each lecture. Participants might be asked: What was your goal in attending? To what extent was your goal achieved? and How has the presentation influenced your perspective on interprofessional collaboration?

As noted, the evaluation revealed the need for more extensive publicity concerning the lectures. This recommendation was intended to promote increased attendance among the school team members. Further, project participants were encouraged to engage in the formative evaluation by soliciting evaluation data about the lectures for future program planning.

Collaboration between the University and Schools

7. During the second year, focus intensive efforts on parental and community involvement in the project. Since so much progress has been made already in achieving the goals of the University Collaboration Program, more time and resources might be expended in the second year on the Public School Services Program, particularly in attempting to increase parental and community involvement in the project.

8. Increase communication and establish strong relationships with representatives of community agencies. The FIPSE InServ Project team should intensify efforts to assure professionals in the community service agencies of the project's intent to support, not eliminate,

their roles at the school site level. Proposed strategies include communicating more often with the agency directors; inviting staff to conferences and meetings; providing compensation for their involvement in the project; and strengthening efforts to establish a spirit of mutual trust and support.

The last two recommendations, involving problematic findings of the evaluation, identify issues that should be considered in the design of other evaluations. The first issue concerning parental involvement illustrates the need to consider the feasibility of accomplishing certain goals. With this perspective, one is more likely to develop or modify goals so they will be achievable. The second issue, concerning the reaction of community agency members who perceived the project as a threat to their role, represents an unexpected finding. Evaluations should be designed to uncover unexpected findings.

Second Year Evaluation Results

As noted previously, the second year evaluation continued to serve a formative role, documenting the project's implementation. In addition, the evaluation included a review of the curriculum development efforts and an assessment of the project's impact on students enrolled in the new curricula.

Implementation Analysis

The implementation section of the evaluation report included the following summary. During the second year of implementation, the FIPSE InServ Project implemented many of the recommendations proposed in the first year evaluation report. Notable accomplishments in the area of interdisciplinary curricula included a well planned and attended seminar on the case study method, the integration of the lecture series and the incorporation of multidisciplinary projects in some teacher education courses. The scope and quality of the lecture series were also enhanced

with increases in the number of lectures and in the number of distinguished, nationally known speakers offering these lectures. In response to the recommendations, FIPSE InServ Project staff also increased the publicity for the lecture series and designed and administered a formative evaluation instrument to monitor the quality and effectiveness of each lecture. Finally, community outreach efforts were expanded significantly during the second year.

Curriculum Evaluation Results

The second year curriculum evaluation included a description of the revised and new interprofessional curricula and analyses of the extent to which each course incorporated the knowledge bases of other professions, promoted interprofessional collaboration and generally promoted the goals of the project. The curriculum evaluation focused on various aspects of each course, including the course overview, goals, content, projects, and readings. Information was obtained from interviews with the faculty and analyses of the syllabi before and after the revisions.

Interviews with the faculty revealed differing perspectives regarding the impact of the project on curriculum development. Therefore, the evaluation report included a section documenting the variation in faculty views. An excerpt follows.

> In discussing their courses, faculty members differ regarding the role of the FIPSE Project and its impact on the teacher education curricula. As reflected in the following comment, one faculty member ascribes a strong influence to the FIPSE Project. "FIPSE formed the basis for the course content/structure, lecture topics, class papers, projects and activities, speakers and films. All speak either indirectly or directly to the project's theme."
>
> Another professor perceives that the FIPSE InServ Project has had an indirect effect through activities that generate discussion and awareness of issues related to integrated services. The professor comments, "The atmosphere has changed as a result of the interscholastic connections made with social work, law and nursing and because of the lecture series and seminars. All of this has influenced how people view their teaching and teacher education."

Still other faculty members contend that much remains to be accomplished to realize the FIPSE InServ Project goals. They recommend that the FIPSE Project establish a systematic plan to transform the curricula and support this plan with relevant resources such as a list of guest speakers for classes and video footage of full-service schools that incorporate integrated service ideas. These faculty members encourage FIPSE Project staff to provide ongoing leadership and guidance in the development of case studies and other curricula materials relevant to interprofessional training and integrated services.

Student Survey Results

During the spring semester in the second year of the project, a survey was administered to students enrolled in the four FIPSE related courses. FIPSE student responses were compared with those of 'non-FIPSE students', i.e., alumni/ae who were enrolled in teacher education programs from 1987 through 1993, prior to the inception of the FIPSE InServ Project. The common questions, administered to both groups of students, related to how well the teacher preparation program prepared students to fulfill multiple teacher roles, to utilize relevant support systems, and to respond effectively to the unique and diverse needs of the students they teach. Selected results from the comparative segment of the evaluation follow.

Analysis of individual questionnaire items revealed that, compared with the non-FIPSE students, the FIPSE students evaluated their teacher preparation program significantly higher in terms of preparing them to assume multiple teacher roles ($X^2 = 30.94$, $p \leq .001$); to use relevant support systems to optimize learning ($X^2 = 9.16$, $p \leq .05$); to respect the unique needs of special needs and minority children ($X^2 = 16.55$ $p \leq .001$); and to design and use evaluative procedures appropriate for children in different groups ($X^2 = 17.28$ $p \leq .001$).

In addition to the individual item analysis, two scales were created to produce more reliable measures of perceived preparation for assuming multiple teacher roles and teaching

diverse students. The first scale, Preparation for Multiple Teacher Roles, is based on students' ratings of two items: preparation for dealing effectively with complexity from multiple teacher roles and preparation for using relevant support systems to optimize learning. The second scale, Preparation for Teaching Diverse Students, includes six items referring to the preparation to respond to children's unique and diverse characteristics in ability and socioeconomic, racial/ethnic and cultural background. The statistical properties of these scales are presented in Table 1. As shown, the reliability for the first, two-item scale is moderate, .68, and the reliability for the second, six-item scale is high, .88.

Table 1. Statistical Properties of the FIPSE InServ Project Evaluation Scales

Scales	Mean	S.D.	Reliability	No. of Items	Range of Responses
					Low - High
Preparation for Multiple Teacher Roles	3.81	.06	.68	2	1 - 5
Preparation for Teaching Diverse Students	3.75	.30	.88	6	1 - 5

Table 2 presents group mean ratings and the results of the t-test comparing FIPSE and non-FIPSE students' ratings on the scale, Preparation for Multiple Teacher Roles. As shown, the FIPSE mean rating is significantly higher than that of the non-FIPSE student rating.

Table 2. Comparison of Student Group Means on their Preparation for Multiple Teacher Roles

	FIPSE Students	Non-FIPSE Students	t Value
$\bar{X}$	4.07	3.70	5.34
S.D.	(.58)	(.83)	($p \leq .001$)
N	127	308	

Table 3 presents FIPSE and non-FIPSE students' mean ratings on the scale, Preparation for Teaching Diverse Students. As indicated by the t value, the FIPSE mean rating of 4.13 is significantly higher than the non-FIPSE rating of 3.62.

Table 3. Comparison of Student Group Means on their Preparation for Teaching Diverse Students

	FIPSE Students	Non-FIPSE Students	t Value
$\bar{X}$	4.13	3.62	7.35
S.D.	(.60)	(.79)	($p \leq .001$)
N	128	311	

Qualitative data were also used to document the perceived effect of the FIPSE InServ Project. These data generally supported the quantitative data documenting the perception that FIPSE related courses were preparing students to identify and collaborate with other professionals to address the complex educational, social, psychological, and health issues that confront today's children. Some students, however, qualified their positive evaluation by noting that they were in the early stages of their teacher preparation program and would need more time, education and experience to be prepared.

Second Year Evaluation Recommendations

Recommendations presented in the second year evaluation report identified two areas for priority attention: interprofessional curriculum development and parental involvement

Interprofessional Curriculum Development

1. The FIPSE InServ Project should increase faculty involvement in the development of interprofessional curricula. As noted in the project proposal, course instructors should meet regularly with the Project Co-Directors in order to share teaching/learning experiences regarding the FIPSE related courses. Now that the FIPSE InServ Project has created the context for interprofessional education and training, it may be beneficial to focus more intensively on specific aspects of curriculum development. Initiatives, proposed by some faculty, include creating a systematic plan to transform the curricula; supporting this plan with relevant resources, such as a list of guest speakers for classes and video footage of full-service schools; and providing ongoing

leadership and guidance in the development of case studies and other curricula materials relevant to interprofessional training and integrated services. The newly developed interprofessional curricula for pre-service teachers should emphasize the application of theory to practice and incorporate 'real life' situations in the classroom.

This evaluation revealed the difficulty of changing curriculum. Feedback from the faculty documented the importance of respecting faculty members' unique priorities and concerns for their own courses and meeting their expectations for resource support. This evaluation reconfirmed that any curriculum development project requires a sensitivity to the issues of academic freedom and an appreciation of the diversity of faculty members' views regarding curriculum development.

Parental Involvement

2. The FIPSE InServ Project should continue to reach out and attempt to increase parents' involvement in their children's education. A first step to achieving this goal may be to identify existing barriers to parental involvement in the schools. Strategies could then be developed to overcome these barriers and facilitate parents' participation in their children's education and in school events. Through increased communication and responsiveness to parents' concerns, the FIPSE InServ Project might realize the ideal goal of collaborating with parents in promoting their children's development.

Results from the first and second year evaluation documented the extraordinary challenge of achieving parental involvement particularly in school settings serving at-risk children. These evaluations results suggest that understanding the difficulty of the goal as well as possessing time, patience and creativity are essential to achieving progress in engaging parents in school based programs.

Discussion

This paper identifies the following types of issues relevant to the design of other evaluations: theoretical and design issues, the construction of valid and reliable measures for evaluation and professional challenges one might encounter in conducting the evaluation.

Theoretical and Design Issues. This evaluation demonstrates the importance of utilizing theory in the construction of the evaluation design; incorporating implementation analysis in conducting the evaluation; and designing an evaluation to reflect a project's developmental phases by progressing from a formative to a summative approach. The implementation analysis illustrates how one can transform daily activities and events into a chronicle of accomplishments. The process evaluation manifests how a general theoretical or conceptual approach can provide an organizing structure and illuminate lessons to be learned from an evaluation. The second year evaluation presents surveys as a methodology potentially relevant to the outcome phase of an evaluation. Finally, the recommendations illustrate how negative findings can be transformed into constructive proposals for improvement.

Evaluation Measures. With reference to student surveys, case studies and the construction of measurement scales, this paper demonstrates how evaluators can develop valid and reliable, quantitative and qualitative measures to assess program effectiveness and make significant contributions to the development of innovative academic and professional degree programs. The development of valid and reliable assessment measures is crucial for the summative or outcome phase of an evaluation.

Professional Challenges. Finally, the role of a program evaluator presents several potential challenges to the institutional researcher. Identifying and addressing these challenges during the design stage will enhance the potential for success during the implementation of the evaluation. Serving as an internal evaluator, the institutional researcher may encounter both political and ethical challenges. For example, findings from the evaluation may identify problems, weaknesses or even failure to accomplish major project goals. While the evaluator is ethically responsible to honestly report the findings, he or she may do well to anticipate how this might be done while protecting the reputation of the project director and staff. Establishing open and continuing communication with the project director will enhance the potential for identifying problems early and making improvements before the outcome phase of the evaluation. Allowing sufficient time for formative evaluation may promote a constructive relationship between the evaluator and the project director and, thus, enhance the possibility of continuous improvement throughout the project. During the evaluation, problems and potential failures can be handled by translating them into constructive recommendations for improvement.

Other challenges that might be anticipated in the evaluation design include: developing strategies to obtain project participants' cooperation with evaluation tasks; preserving the confidentiality of project participants who offer feedback to the evaluation; and finally, developing innovative and creative assessment approaches to handle unexplained directions of the project or unsuccessful attempts at project goals. In conclusion, this paper supports the use of multiple and diverse methodologies for evaluation to be selected in accordance with the developmental phase of the project's implementation.

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